

### REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the present amendments and in light of the following discussion, is respectfully requested.

Claims 12-13 and 16-19 are pending in the present application. Claims 12 and 16 are amended. Claims 18-19 are newly added. Claim 13 is withdrawn. Support for amended Claim 12 and for newly added Claims 18-19 can be found in Figures 8 and 10, for example. Support for newly added Claim 16 is self-evident. Thus, no new matter is added.

The outstanding Office Action rejected Claim 12 under 35 U.S.C. §103(a) as unpatentable over Nelson et al. (U.S. Patent No. 6,529,377, hereinafter “Nelson”) in view of Steele et al. (U.S. Patent No. 5,562,949, hereinafter “Steele”) or Uchida et al. (U.S. Patent No. 5,943,543, hereinafter “Uchida”) and further in view of Sugito (U.S. Patent No. 6,681,843); and rejected Claims 16-17 under 35 U.S.C. § 103(a) as unpatentable over Nelson in view of Steele or Uchida and Sugito and in further view of Newton et al. (U.S. Patent No. 6,437,981, hereinafter “Newton”).

At the outset, Applicants note with appreciation the courtesy of a personal interview granted to Applicants’ representative by Primary Examiner Leonard Leo. In combination with the Interview Summary provided by Primary Examiner Leo, the substance of the personal interview is substantially summarized below in accordance with MPEP § 713.04.

Applicants respectfully traverse the rejection of Claim 12 under 35 U.S.C. §103(a) as unpatentable over Nelson in view of Steele or Uchida and further in view of Sugito.

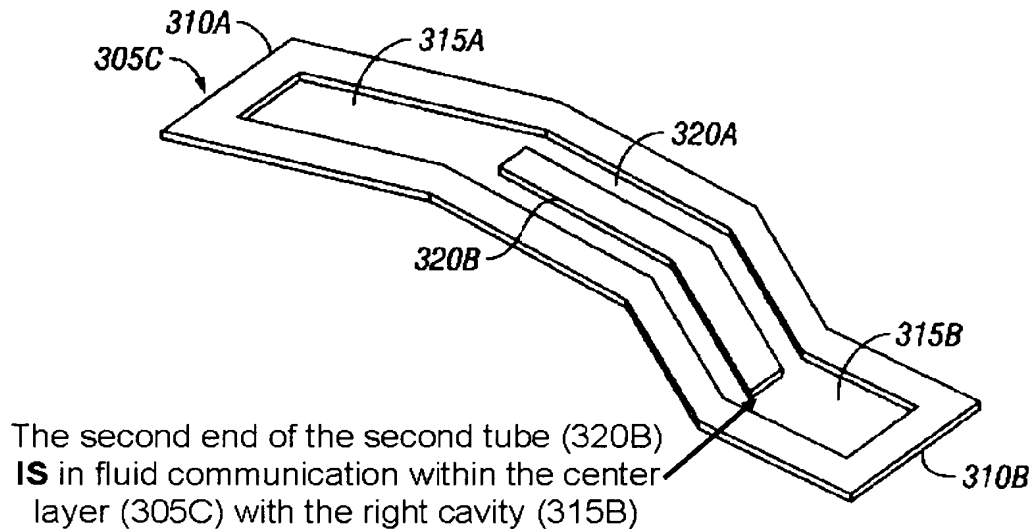
Amended independent Claim 12 recites a first ditch provided on the face of the second base plate that defines a channel which transports the gas-phase working fluid from the vaporization chamber to the liquefaction chamber and a second ditch provided on the face of the second base plate that defines a further channel which transports the liquid-phase working fluid from the liquefaction chamber to the liquid suction and retention unit. A first

end of the first ditch being in fluid communication with the vaporization chamber and a second end of the first ditch being in fluid communication with the liquefaction chamber. A first end of the second ditch being in fluid communication with the liquefaction chamber and a second end of the second ditch being a closed end adjacent to the vaporization chamber such that the second end of the second ditch is not in fluid communication within the second base plate with the vaporization chamber.

Turning now to the cited art, Nelson describes an integrated cooling system. The outstanding Office Action asserts that the bottom metal layer (305B) is a first base plate, the center layer (305C) is a second base plate, the right cavity (315B) is a first concavity, the left cavity (315A) is a second concavity, the first tube (320A) is a first ditch and the second tube (320B) is a second ditch.<sup>1</sup> Although Nelson describes a first end of the second tube (320B) that is in fluid communication with the left cavity (315A), Nelson fails to describe a second end of the second tube (320B) that is a closed end adjacent to the right cavity (315B) such that the second end of the second tube (320B) is not in fluid communication within the center layer (305C) with the right cavity (315B). Instead, as discussed in the personal interview and as shown below in annotated Figure 2, a second end of the second tube (320B) is in fluid communication within the center layer (305C) with the right cavity (315B).

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<sup>1</sup> See outstanding Office Action at page 2.



Moreover, as discussed in the personal interview, it would not be obvious to modify the second end of the second tube (320B) to be a closed end adjacent to the right cavity (315B) such that the second end of the second tube (320) is not in fluid communication with the right cavity (315B), as such a modification would render the Nelson device unsuitable for its intended purpose. MPEP § 2143.01(V) states:

**V. THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE**

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Indeed, Nelson describes that the second tube (320B) connects the right cavity (315B) to the left cavity (315A) and, along with the first tube (320A), forms a closed loop circuit for a liquid to flow.<sup>2</sup> The liquid flows in the closed loop circuit for dissipating heat generated in a heat source (80).<sup>3</sup> Accordingly, if the second tube (320B) were modified such that the right cavity (315B) was not in fluid communication within the center layer (305C) with the right

<sup>2</sup> See Nelson at column 5, lines 24-27.

<sup>3</sup> See Nelson at column 5, lines 1-3.

cavity (315B), then a closed loop circuit for a liquid to flow would not be formed and the heat generated in the heat source (80) would not be dissipated. In other words, such a modification would render the Nelson device unsuitable for its intended purpose.

Steele and Uchida fail to remedy the deficiencies discussed above regarding Nelson in relation to amended independent Claim 12. Instead, as discussed in the personal interview, Steele and Uchida are silent regarding a second end of a second ditch being a closed end adjacent to a vaporization chamber such that the second end of the second ditch is not in fluid communication within the second base plate with the vaporization chamber.

Sugito fails to remedy the deficiencies discussed above regarding Nelson, Steele, and Uchida in relation to amended independent Claim 12. Instead, Sugito is silent regarding a second end of the second ditch being a closed end adjacent to the vaporization chamber such that the second end of the second ditch is not in fluid communication within the second base plate with the vaporization chamber.

Accordingly, no reasonable combination of Nelson, Steele, Uchida, and Sugito would include all of the features recited in amended independent Claim 12, or claims depending therefrom. The other cited reference to Newton was applied for other features recited in dependent claims and does not provide any additional support for concluding that Claim 12 would have been obvious. Therefore, Applicants respectfully request the rejection of Claims 12 and 16-17 under 35 U.S.C. §103(a) be withdrawn.

Newly added dependent Claims 18-19 depend from amended independent Claim 12, and patentably define over the cited references for at least the same reasons that amended independent Claim 12 does.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Steven B. Chang", is written over a horizontal line.

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